

and (3) the *flagellum*, or free, arcuate, flail-like terminal portion of the "beak." These portions are all readily recognizable in the mature carpels ("seeds" of the florist). Brumhard¹ was, perhaps, the first to direct attention to the characters of the scar-like foveole at the top of the carpel-body in this genus, and Eig² has followed his example.

CARPEL KEY FOR COMMON WEST-AMERICAN "ALFILERIAS"

- Corpusculum 4 to 5 mm. long.
 - Foveole inconspicuous, circular, about 0.5–0.75 mm. long. **E. cicutarium** (alfileria).
 - Foveole conspicuous, shouldered, oblong, about 1.5 mm. long.
 - Flagellum mostly reflexed, its span usually shorter (10–12.5 mm.) than that of *cicutarium* (about 15 mm.). **E. moschatum** (musk filaree).
- Corpusculum 7 to 10 mm. long.
 - Corpusculum truncate, rather uniformly and densely beset with appressed or moderately spreading, both grayish-white and tawny hairs; spirillum usually with only 2 or 3 turns. **E. macrophyllum** (California heronbill).
 - Corpusculum not truncate at apex, sparsely pubescent.
 - Spirillum with numerous turns, about 18–21 mm. long; flagellum short-grayish-white-pubescent. Corpusculum hairs semi-appressed, whitish **E. botrys** (big heronbill).
 - Spirillum usually with about 4 turns, about 8–12 mm. long; flagellum conspicuously tawny-hairy, with a span of 20 mm. or more. Corpusculum hairs spreading, both grayish-white and tawny. **E. texanum** (Texas heronbill).

RANGE FORAGE INVESTIGATIONS,
 Division of Range Research, U. S. Forest Service.

RANGE EXTENSIONS IN NORTH CAROLINA.—On July 19, 1936, while motoring near Jonas Ridge in Burke County, North Carolina, I found a small bog filled with a solid growth of *Juncus Smithii* Engelm. A few days before Dr. H. M. Jennison had shown me this very local species in the Smoky Mountains of Tennessee; otherwise I might very likely have overlooked it. It is now known from Schuylkill County, Pennsylvania, Walton County, Florida, Blount County, Tennessee (RHODORA, Vol. 37, p. 313) and from Burke County, North Carolina.

In 1933 I collected *Scrophularia lanceolata* Pursh, growing on the lower slopes of Grandfather Mountain in Avery County, North

¹ Brumhard, P. Monographische Übersicht der Gattung *Erodium*. Arb. Bot. Gart. Univers. Breslau, 59 pp. 1905.

² Eig, A. Revision of the *Erodium* species of Palestine. Beih. Bot. Centralbl, 50. Abt. 2, Hft. 1: 226–240. 1932.

Carolina, and again this summer I found it near Pineola in the same County. I believe this is new to the state and extends the southern limit of its range from Virginia into North Carolina. The species is not included in Small's Flora which covers North Carolina.—FRANCIS WELLES HUNNEWELL, Wellesley, Mass.

MONOGRAPHIC STUDIES IN THE
GENUS ELEOCHARIS. IV

H. K. SVENSON

(Continued from page 231)

10. *E. RETROFLEXA* (Poir.) Urban (PL. 461, FIG. 11). MAP 8. Cespitose, often proliferous annual (?) with fibrous roots: culms green, filiform, *usually recurved*, 2–2.5 cm. long, flattened to deeply quadrangular-sulcate, obscurely punctate: sheath stramineous to reddish, obtuse, scarious and inflated at the summit: spikelets few- to many-flowered, the *scales usually spreading in fruit*: scales green, keeled, obtuse to acute, often with chestnut to reddish-brown sides: style 3-fid: achene 1.0–1.2 mm. long, trigonous, *cancellate*, costate, obovoid to urceolate, white or stramineous: style-base light brown, as wide and 1/3 as long as the body of the achene, *pyramidal-acuminate*, the *angles decurrent on the costae of the achene*: bristles white, shorter than the achene.—Symb. Ant. ii. 165 (1900); Britton & Wilson, Bot. Porto Rico & Virgin Is. v¹. 92 (1923); Small, Man. 164 (1933); Uittien in Pulle, Fl. Surinam i. 112 (1934). *Scirpus retroflexus* Poir. in Lam. Encyc. vi. 753 (1804). *Cyperus depauperatus* Vahl, Enum. ii. 305 (1805). *Bacothryon retroflexum* A. Dietr. Sp. Pl. ii. 93 (1833). *Eleocharis depauperata* Kunth, Enum. ii. 140 (1837). *Chaetocyperus polymorphus* Nees & Lindl. α *depauperatus* Nees in Mart. Fl. Bras. ii¹. 94 (1842); Liebmann, [Mexicos Halvgraes] Vidensk. Selsk. Skr. ser. 5, ii. 242 (1851). *C. niveus* Liebm. and *C. viviparus* Liebm. (l. c.). *Chaetocyperus rugulosus* Nees, Bonplandia iii. 86 (1855) [Panama]. *Heleocharis triflora* Boeckl. Flora lxiii. 437 (1880) acc. to Britton.¹ *E. Chaetaria* Britton, Journ. N. Y. Mic. Soc. iii. 105 (1889); Mohr, Contr. U. S. Nat. Herb. vi. 398 (1901); and other auths. as to American plants only.—Alabama, West Indies, and abundantly throughout the American tropics, Poiret's type coming from Porto Rico. ALABAMA: copiously about the spring, Daphne, eastern shore of Mobile Bay, Aug. 23, 1896, Mohr (NY, US). CUBA [all known collections are from Pinar del Rio and Havana provinces]: Pinar del Rio, Shafer no. 335 (NY); Sierra de Cabra, Britton & Cowell no. 9808 (NY); Rio Mestanza,

¹ Probably, however, *E. parvula* var. *anachaeta* (see RHODORA xxxi. 177 (1929) and xxxvi. 388 (1934)), conforming especially well with Boeckeler's description of the style-base "rostrum minuto viridulo triangulari acuto, basi haud prominente."